

(19)



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(11)

EP 0 982 044 A3

(12)

## EUROPEAN PATENT APPLICATION

(88) Date of publication A3:  
07.03.2001 Bulletin 2001/10

(51) Int Cl.7: A61M 16/01, A61M 16/08,  
A61M 16/00

(43) Date of publication A2:  
01.03.2000 Bulletin 2000/09

(21) Application number: 99306804.8

(22) Date of filing: 26.08.1999

(84) Designated Contracting States:  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE  
Designated Extension States:  
AL LT LV MK RO SI

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(30) Priority: 26.08.1998 US 140706

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(54) Method and apparatus for detecting an empty gas compartment in a patient ventilator

(57) An apparatus/method for detecting an empty breathing gas compartment (27) condition in a bellows ventilator for a patient. The apparatus includes a first sensor (10) for measuring, during inspiration, the incoming flow of gas into a driving gas compartment (26) located in the bellows container (13). The second sensor (11) measures the pressure in the driving gas compartment (26). During the inspiration cycle, measurements taken by the first and second sensors (10,11) are sig-

naled to a control unit (3) and used to determine a  $\Delta V/\Delta p$  compliance value. The compliance value will be large if the bellows (14) is movable, i.e. not in the empty breathing compartment gas condition. The compliance value is small if the empty breathing gas compartment condition exists. The compliance value, so determined, is compared with a reference compliance value in the control unit to detect the empty breathing gas compartment condition.

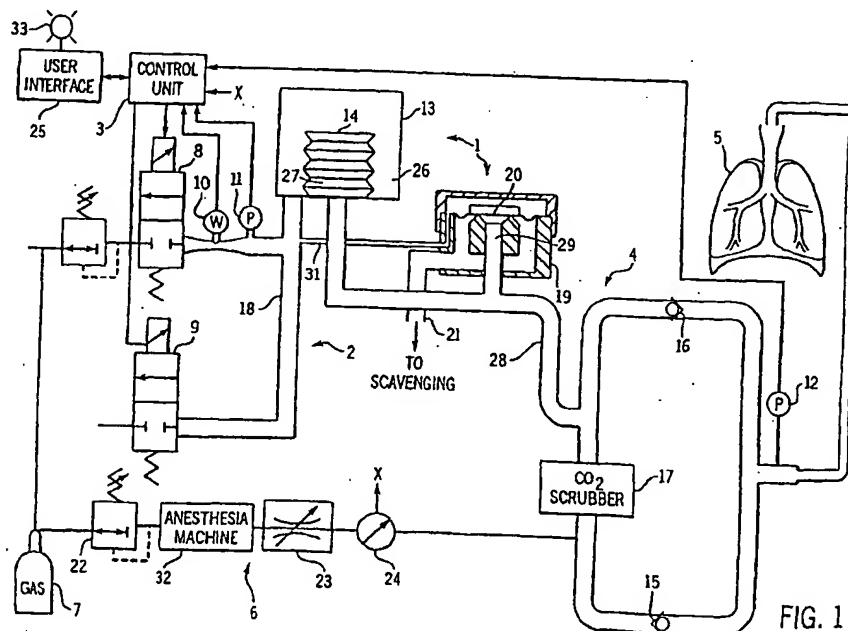


FIG. 1

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# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 99 30 6804

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08-01-2001

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